

TOPORKOV, I.A. [Toporkov, I.O.]

"An outline of the study of hypertension" by N.N. Horev. Reviewed  
by I.O. Toporkov. Fiziol. zhur. [Ukr.] 5 no.5:703-704 S-0 '59  
(HYPERTENSION) (HOREV, N.N.) (MIRA 13:3)

TOPORKOV, I.A. (Moskva)

Diseases of the peripheral nervous system and muscles in patients  
with hypertension in the Far North. Klin. med. 37 no.5:106-112  
My '59. (MIRA 12:8)

(HYPERTENSION, compl.

musc. & NS dis. in subjects in Arctic areas (Rus))

(MUSCLES, dis.

in hypertension in subjects in Arctic areas (Rus))

(NERVES, PERIPHERAL, dis.

in hypertension in subjects in Arctic areas (Rus))

TOPORKOV, I.A. (Moskva)

Hypovitaminosis in the Far North. Vop.pit. 19 no.4:78 JI-Ag '60.  
(MIRA 13:11)

(SOVIET FAR EAST--DEFICIENCY DISEASES)

BIBIK, A.Ye.; DOMETTI, A.A.; ZIMINA, A.M.; LAKTIONOVA, P.I.; MAKSIMOV,  
N.A.; MOROSHKINA, O.I.; MYASISHCHEVA, B.I.; ERDELI, V.G.;  
NECHAYEVA, Yu.A.; PADEZHNOV, A.I.; PREOBRAZHEMSKIY, A.I.;  
RAUSH, V.A.; RYNDIN, A.A.; SAUSHKIN, Yu.G.; SMIRNOVA, M.P.;  
STROYEV, K.F.; TOPORKOV, I.D.; FREYKIN, Z.G.

Fedor Pavlovich Kalinin; obituary. Geog. v shkole 26 no.2:85  
Mr-Ap '63. (MIRA 16:4)

(Kalinin, Fedor Pavlovich, 1899-1962)

TOPORKOV, I.D.; SIMONENKO, V.D. (Lugansk)

Calendar of noteworthy dates. Geog. v shkole 25 no.4:26-32  
Jl-Ag '62. (MIRA 15:8)  
(Arsen'ev, Vladimir Klavalevich, 1872-1930)  
(Voronin, Vladimir Ivanovich, 1890-1952)  
(Sedov, Georgii Iakovlevich, 1877-1914)

TOPORKOV, I.D.

Wall-type meteorological station in the school. Geog.v shkole  
22 no.5:60-63 S-O '59. (MIRA 13:2)  
(Meteorological instruments)

TOPORKOV, L.; BENDER, A., red.; RAKHIMOV, T., tekhn. red.

[Striding toward tomorrow; about Uktam Iriskulov's communist labor brigade] Idushchie v zavtra; ocherk o brigade kommunisticheskogo truda Uktama Iriskulova. Tashkent, "Esh gvardiia," 1961. 19 p. (MIRA 15:7)  
(Tashkent—Agricultural machinery industry)  
(Tashkent—Socialist competition)

TOPORKOV, L.G.

Methodology of isolating the vectors of a nonperiodic current  
in the sea. Trudy AANII 254:75-78 '63.

(MIRA 17:11)



TOPORKOV, L.G.

Cause of the difference in the heat content of the waters in the  
western and eastern parts of the Bering Strait. Okeanologia 2  
no.5:810-814 '62. (MIRA 15:11)  
(Bering Strait—Sea water)

TOPORKOV, L.G.

"Oceanography." IU.V. Istoshin. Reviewed by L.G. Toporkov. Meteor.  
1 gidrol. no. 5:64-66 S-O '55. (MIRA 8:12)  
(Oceanography) (Istoshin, IU.V.)

Abstract : The book is severely criticized for a considerable number of errors  
and inexact statements. The reviewer suggests this manual be  
revised and re-edited.

SOV/124-58-7-7662

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 7, p 46 (USSR)

AUTHOR: Toporkov, L.G.

TITLE: Direct Observational Data Used to Study the Interference Between Tidal-wave Components (Issledovaniye interferentsii sostavlyayushchikh voln priliva po dannym neposredstvennykh nablyudeniyy)

PERIODICAL: Uch. zap. Leningr. vyssh. inzh. morsk. uch-shcha, 1957, Nr 6, pp 28-33

ABSTRACT: The author proposes a method which makes it possible from observational data to ascertain the presence of interference and to determine the parameters of the waves affected by the interference. An examination is made of an instance of interference between two semidiurnal tidal-wave components advancing in a sense opposite to one another in a constant-section channel of infinite length situated at the equator. The author demonstrates that, although the amplitudes of the interfering waves will, of course, vary from one section of the channel to another, their ratio over the whole length of the channel will remain constant. It is proposed that the ratio of the amplitude of the smaller one

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SOV/124-58-7-7662

Direct Observational Data Used to Study the Interference (cont.)

of the waves subject to the interference to that of the larger one be named the "interference constant". The problem reduces to determining the magnitude of this "interference constant" from observational data. The observations made should be sufficient to enable an observer to plot an empirical curve for the amplitude variation of the resultant wave along the full length of the channel. Designating  $d$  as the curve's maximum at one sectional plane of the channel and  $q$  as its minimum, the author obtains for his "interference constant" the expression

$$\alpha = \frac{d - kq}{d + kq} \quad \left( k = \sqrt{\frac{H_1}{H_2}} \sqrt{\frac{b_1}{b_2}} \right)$$

wherein  $H_1$ ,  $b_1$ ,  $H_2$ ,  $b_2$  are the respective depths and widths of the cross sections of the channel involved. All these values can be obtained from a bathymetric chart and the plotted empirical curve of the tidal wave's amplitude variations. By way of example, the author solves the problem for a tidal wave  $M_2$  in the Straits of Malacca. In addition to the factors cited above he uses for the purpose a cotidal chart of this wave, arriving first at a value for his "interference constant", then at the amplitudes of the waves being

Card 2/3

SOV/124-58-7-7662

Direct Observational Data Used to Study the Interference (cont.)

interfered with. The greater the value of the "interference constant", the nearer the resultant wave is to being a standing wave. Hence, the value obtained for the "interference constant" not only characterizes the amplitude variations of a tidal-wave component along the Straits, but also makes it possible to draw certain inferences concerning the intensity of the tidal currents in the different parts of the Straits.

O.R. Lundsberg

1. Ocean waves--Theory
2. Data--Analysis

Card 3/3

TOPORKOV, L.G.

Maximum accuracy attainable in numerical forecasting of tidal  
fluctuations of the sea level. Probl.Arkt. no.6:29-36 '59.

(Tides)

(MIRA 13:6)

TOI'ORKOV, L.G.

Harmonic analysis of tides. Izv. AN SSSR. Ser. geofiz. no.2:  
1233-1234 Ag '61.

(MIRA 14:7)

1. Nauchno-issledovatel'skiy institut Arktiki i Antarktiki.  
(Tides)

TOPORKOV, L.G., kand.geograf.nauk

Can we destroy the ice cover of the Arctic Ocean? Priroda 50  
no.11:93-97 N '61. (MIRA 14:10)

1. Arkticheskaya nauchno-issledovatel'skaya observatoriya,  
Pevek, Magadanskaya obl.  
(Arctic regions--Climate)



TOPORKOV, L.G.

Method for studying the regime of nonperiodic currents. Okeanologiya  
4 no.1:64-65 '64. (MIRA 17:4)

1. Arkticheskiy i antarkticheskiy nauchno-issledovatel'skiy  
institut, Leningrad.

TOPORKOV, L.G.

Inertial fluctuations in the level of the sea. Trudy AANII 256:  
61-66 '61. (MIRA 15:8)

(Oceanography)

~~TOPORKOV~~, M.F., podpolkovnik meditsinskoy sluzhby (Leningrad)

Toxoplasmosis. Vrach. delo no.9:78-82 S '60. (MIRA 13:9)

1. Kafedra infektsionnykh bolezney (nachal'nik - prof. P.A. Alisov)  
Voyenno-meditsinskoy ordena Lenina akademii im. S.M. Kirova.  
(TOXOPLASMOSIS)

TOPORKOV, M.F.

Frequency of relapses in patients with acute and chronic dysentery treated by the cyclical method with drugs of the sulfonamide group. Zhur.mikrobiol., epid. i immun. 32 no.10:41-45 0 '61. (MIRA 14:10)

1. Iz Voenno-meditsinskoy ordena Lenina akademii im. Kirova.  
(SULFONAMIDES) (DYSENTERY)

TOPORKOV, M.F., podpolkovnik meditsinskoy sluzhby

Clinical characteristics of dysentery in vaccinated patients.

Sbor.nauch.trud.Kiev.okruzh.voen.gosp. no.4:265-268 '62. (MIRA 16:5)

(DYSENTERY—PREVENTIVE INOCULATION)

TOPORKOV, N.

"Work Regulated by Graphic Ruler in Openhearth Furnaces of the Sickle and Hammer Steelworks" p. 21, (HUTNIK, Vol. 3, no. 1, Jan. 1953, Praha, Czechoslovakia).

SO: Monthly List of East European Accessions, LC, Vol. 2, No. 11, Nov. 1953, Uncl.

ACCESSION NR: AP4042867

S/0062/64/000/007/1158/1164

AUTHOR: Toporov, N. A.; Bondar', I. A.; Galakhov, F. Ya.; Nilogosyan, Kh. S.;  
Vinogradova, N. V.

TITLE: Phase equilibria in the yttrium oxide-aluminum oxide system.

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 7, 1964, 1158-1164

TOPIC TAGS: yttrium oxide containing system, aluminum oxide containing system,  
Y sub 2 O sub 3 Al sub 2 O sub 3 system, phase equilibrium, phase diagram, 2Y sub  
2 O sub 3 .Al sub 2 O sub 3, 3Y sub 2 O sub 3 .5Al sub 2 O sub 3, Y sub 2 O sub  
3, YAlO sub 3, beta alumina type compound, metastable state, K sub 2 O B sub 2 O  
sub 3 system, potassium oxide containing system, boron oxide containing system,  
x ray analysis

ABSTRACT: The phase diagram for the  $Y_2O_3-Al_2O_3$  system was constructed (see fig. 1  
of the enclosure) based on microstructural and x-ray data. The existence of the  
three compounds  $2Y_2O_3 \cdot Al_2O_3$ ,  $3Y_2O_3 \cdot 5Al_2O_3$  and  $Y_2O_3 \cdot Al_2O_3$  (or  $YAlO_3$ ) was established.  
Beta-alumina type compounds were not formed. It was indicated a metastable state  
may be formed in this system between 2:1 and 3:5 with a eutectic at 1850C. A

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ACCESSION NR: AP4042867

partial phase diagram was constructed of the  $K_2O-B_2O_3$  system (see fig. 2 of the enclosure). A metastable region was found in this system between  $K_2O.2B_2O_3$  and  $K_2O.4B_2O_3$ . Orig. art. has: 4 tables and 5 figures.

ASSOCIATION: Institut khimii silikatov im. I. V. Grebenshchikova Akademii nauk SSSR (Institute of Silicate Chemistry, Academy of Sciences SSSR)

SUBMITTED: 03Dec62

ENCL: 02

SUB CODE: IC

NO REF SOV: 002

OTHER: 010

Card 2/4



ACCESSION NR: AP4042867

ENCLOSURE: 01

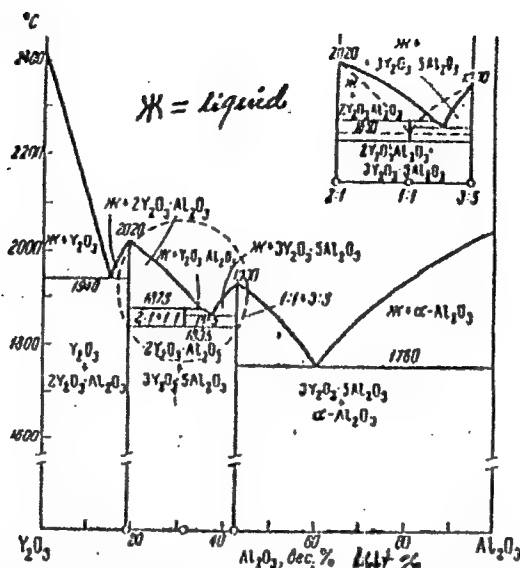


Fig. 1. Phase equilibria in the yttrium oxide-aluminum oxide system.

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ACCESSION NR: AP4042867

ENCLOSURE: 02

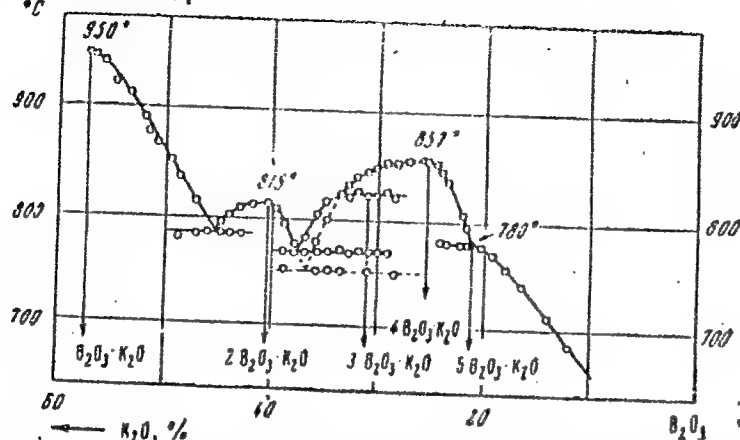


Fig. 2. Phase equilibria in the potassium oxide-boron oxide system.

Card 4/4

SHAKHTMEYSTER, I.Ya., kandidat meditsinskikh nauk; TOPORKOV, N.P.

Liver function in patients with syphilis. Vest.ven. i derm. 30  
no.2:49 Mr-Apr '56. (MLBA 9:7)

1. Iz Sverdlovskogo oblastnogo kozhno-venerologicheskogo instituta.  
(LIVER--SYPHILIS)

TOPORKOV, N.V.

Introduction of organizational and technological methods. Neft.khoz.  
35 no.2:61-63 F '57. (MIRA 10:3)  
(Petroleum industry)

TOPORKOV, S.

Nature of Nikol'sk District. Volog. krai no.3:127-153 '62.  
(MIRA 16:12)

UTKIN, K.G.; TOPORKOV, S.A.

Using the rubber membrane method to determine the emission current in axially symmetric systems. Zhur. tekhn. fiz. 32 no.6:706-712 Je '62. (MIRA 15:7)

1. Leningradskiy politekhnicheskii institut imeni M.I. Kalinina.  
(Potential, Theory of) (Electromechanical analogies)

S/O48/63/027/003/021/025  
B106/B238

AUTHORS: Il'in, M. M. Solov'yev, A. M., Vertsner, V. N.,  
Dutov, G. G., Kolchev, B. S., and Toporkov, S. A.

TITLE: A commercial MAP-1 (MAR-1) instrument for X-ray  
microanalysis

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya,  
v. 27, no. 3, 1963, 420-426

TEXT: This paper describes in detail a new MAP-1 (MAR-1) X-ray micro-analyzer developed and tested in the Krasnogorskiy mekhanicheskiy zavod (Krasnogorsk Machine Plant). The instrument consists of the recorder, and of the microanalyzer itself, comprising the electronoptical system providing the electron probe, 2 X-ray spectrometers, a specimen chamber with an optical microscope, the electrical input circuit, and the vacuum system. The electron source is a three-electrode gun with an automatic negative shift. The optical microscope makes it possible to observe the surface of the specimen at a magnification of 450 X, the resolution being  $< 1\mu$ . The non-vacuum spectrometer analyzes X-rays with a wave-

Card 1/2.

S/048/63/027/003/021/025  
B106/B238

A commercial ...

length of up to  $1.5 \text{ \AA}$ , and the vacuum spectrometer those from  $1.5$  to  $10 \text{ \AA}$ . The spectra are analyzed using Johann's method. The Bragg angles range from  $18$  to  $40^\circ$ . The analyzer crystals are  $\{1340\}$  quartz crystals with a radius of curvature of  $500 \text{ mm}$ . The diameter of the X-ray source is  $1-2 \mu$ ; this value depends on the diameter of the electron probe, which is  $\leq 1 \mu$ . The amperage in the focused probe, is about  $10^{-6} \text{ A}$  and the current stability amounts to  $0.5 \%$  per hour. The instrument makes determinations on the specimen possible in the  $1 - 2 \mu$  range. When the specimen is impermeable, the change in the Bragg angle of the elements from Mg to U can be determined by using both spectrometers. The distribution of the element in the specimen to be determined in the given direction can also be determined. This is done by displacing the specimen under the electron probe with an electric motor at a fixed Bragg angle corresponding to a characteristic frequency. The dispersion and sensitivity of the instrument were studied; the sensitivity in an analysis of copper via the  $K_\alpha$  doublet was  $< 0.1 \%$ . There are 8 figures.

Card 2/2



IL'IN, M.M.; SOLOV'YEV, A.M.; VERTSNER, V.N.; DUTOV, G.G.; KOLCHEV, B.S.;  
TOPORKOV, S.A.

MAR-1 industrial X-ray spectrum microanalyzer. Izv. AN SSSR.  
Ser.fiz. 27 no.3:420-426 Mr '63. (MIRA 16:2)  
(X-ray spectroscopy)

S/057/62/032/006/010/022  
B108/B102

9.3120

AUTHORS: Utkin, K. G., and Toporkov, S. A.

TITLE: Determination of the emission current in axisymmetric systems with the aid of a rubber membrane

PERIODICAL: Zhurnal tekhnicheskoy fiziki, v. 32, no. 6, 1962, 706 - 712

TEXT: The use of the rubber membrane method in determining the potential distribution and the current from the cathode surface in axisymmetric systems is proposed. This method is usually applied to plane problems. If however, the boundary conditions of the membrane are properly chosen this method is suitable also to simulate axisymmetric problems. If a pressure  $p = \frac{T}{r} \frac{\partial h}{\partial r}$  is applied to the membrane it will simulate the potential distribution without space charge. The problem with a space charge can be rendered by adding a linear term to the expression for the pressure on the membrane.  $T$  is the tension of the membrane,  $h$  is the deviation of the membrane surface from equilibrium. Calculations were performed for cylindrical diodes. The results are in good agreement with the results.

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Determination of the ...

S/057/62/032/006/010/022  
B108/B102

of measurements on real objects. There are 7 figures and 1 table. VB

ASSOCIATION: Leningradskiy politekhnicheskii institut im. M. I. Kalinina  
(Leningrad Polytechnic Institute imeni M. I. Kalinin)

SUBMITTED: July 17, 1961

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DUTOV, G.G.; SOLOV'YEV, A.M.; TOPORKOV, S.A.

Experimental setup of nonaxisymmetric optics for probing systems.  
Izv. AN SSSR. Ser. fiz. 27 no.9:1154-1157 S '63. (MIRA 16:9)  
(Electron optics)

SOLOV'YEV, A.M.; VERTSNER, V.N.; IL'IN, M.M.; TOPORKOV, S.A.; KOLCHEV, B.S.;  
DUTOV, G.G.

Industrial X-ray spectral microanalyzer MAR-1. Izv. AN SSSR.  
Ser. fiz. 27 no.9:1162-1165 S '63. (MIRA 16:9)  
(X-ray spectroscopy)

3651-46 ENT(1)/ENT(m)/T/REP(t)/ETI 11(c) 71/10 3

ACC NR: AP6015757

SOURCE CODE: UR/0048/66/030/005/0754/0757

AUTHOR: Vertsner, V.N.; Gerling, V.E.; Zenov, B.K.; Krupchatkin, V.D.; Omelin, V.M.;  
Solov'yev, A.M.; Toporkov, S.A.; Ustimenko, V.V.

ORG: none

TITLE: An x-ray microanalyzer featuring recording without a crystal /Report, Fifth  
All-Union Conference on Electron Microscopy held in Sumy 6-8 July 1965/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 30, no. 5, 1966, 754-757

TOPIC TAGS: x ray analysis, proportional counter, special purpose computer

ABSTRACT: An x-ray microanalyzer is described in which the x rays are recorded directly with a proportional counter without the use of a crystal diffraction x-ray spectrometer. This type of recording has the advantages of simplicity and high sensitivity, and the disadvantage of low resolving power. The electron-optical system of the instrument provides a 3-5  $\mu$  diameter probe with a current of about 1  $\mu$ A. Adjustment is facilitated by an optical microscope with a resolution of 3 $\mu$  and a working distance of 19 mm, which can be focused by means of a lever without breaking the vacuum. Type CPM-1 sealed off proportional counters as well as flow-type counters have been employed with this instrument. These counters with their associated circuits cannot resolve the K lines of neighboring elements. When the concentrations of neighboring elements

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L 36551-66  
ACC NR: APG015757

is to be determined, the counting rate versus pulse height curve is resolved mathematically into three curves, each representing the contribution of one of three neighboring elements. This resolution is effected automatically by a computing circuit, the operating principle of which is described and is based on a modification of the technique proposed by R.M.Dolby (Proc. Phys. Soc., 73 81 (1959)). The error in determining concentrations of neighboring elements is about 20 %; this large error is due to the long time required for the determination (at least 40 minutes) together with the instability of the proportional counter, the amplifier, and the differential discriminators. When the elements to be determined differ in atomic number by more than 4 or 5 units the different K lines are directly resolved and the error of the determination is not more than 5 %. Under these conditions the computing circuit can be used as a three-channel pulse analyzer for the simultaneous recording of the K line intensities of three different elements. Orig. art. has: 3 formulas and 5 figures.

SUB CODE: 20/

SUM DATE: 00/

ORIG REF: 000/

OTH REF: 005

Cord 2/2/11.8

10

ca

Hydrazobenzene. N. I. AMIANTOV and S. D. TOROKOV. Russ. 27,381, June 22, 1930. To a mixt. of NaOH and Fe shavings is added nitrobenzene and the paste obtained, after the disappearance of the nitrobenzene odor, is transferred into another reducing vessel with Fe shavings where final reduction is effected

ASM-55A METALLURGICAL LITERATURE CLASSIFICATION



PROCESS AND PROPERTIES INDEX																									
1ST AND 2ND ORDERS													1ST AND 2ND ORDERS												
<p>(11)</p> <p>Agglomeration of iron ores from the Kerch Peninsula.  S. D. Toporkov, <i>Inst. Mekhanicheskoi Obrabotki Poles-  nuikh Ispolzaemuih Mekhanob (Inst. Mech. Treatment  (hes). Concn. and Agglomeration of Iron Ores in U. S.  S. R. 1932, 14-21.</i>—The agglomeration was carried out  with coke breeze and water. The operation was carried  out under a vacuum of 400-380 mm. Good results  were obtained on adding 7-9% coke to the mined ore,  giving an Fe concn. of 42.51-60.56%. The agglomera-  tion of the wet concentrate was also successful, while in  the agglomeration of the concentrate from the electro-  magnetic concn. of the ore only 2% coke was needed to  produce a strong structure on heating. The content of  As was lowered by 50-60% in all the above operations.  A. A. Bochtlingk</p>																									
<p>ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION</p>																									
1ST AND 2ND ORDERS													1ST AND 2ND ORDERS												

**Agglomeration of the Lipetsk ore.** S. D. Lopyrev, <sup>3</sup>  
Inst. Mekhanicheskoi Obrabotki Polesnykh Iskopaemykh  
Mekhanizor (Inst. Mech. Treatment Ores). Conc. and  
Agglomeration of Iron Ores in U. S. S. R. 1932, 65-7.—  
The agglomerates were prepared from ore breeze, coke  
and water. They were burned and the agglomerates  
were crushed, yielding 2 classes of material: (a) above  
4 mm. and (b) 4-0 mm. (a) was tested for strength and  
(b) was returned to be pressed once more. The best  
results were obtained on iron ore concentrates of 3-0  
mm. A. A. Boetlingk

ASD-5L0 METALLURGICAL LITERATURE CLASSIFICATION

COMMON ELEMENTS																									
METALLURGICAL LITERATURE CLASSIFICATION													SIGNATURE												
<p>Agglomeration of Tula ore. S. D. Tsygorkov. Inst. of  Mekhanicheskoi Obrabotki Poleznuikh Iskopaemul'kh Me-  khanobr (Inst. Mech. Treatment Ores). <i>Concn. and Ag-  glomeration of Iron Ores in U. S. S. R. 1932, 70 2.</i>  The concentrates with a grain size of 0-0 mm. obtained  from log-washers contained Fe 40.30-51.10, Fe<sup>++</sup> 0.30,  SiO<sub>2</sub> 0.30, Al<sub>2</sub>O<sub>3</sub> 2.20, CaO 0.73, MgO 0.31, MnO 0.04,  P<sub>2</sub>O<sub>5</sub> 0.03, S 0.31 and H<sub>2</sub>O 19.00%. The agglomerates  which were obtained by calcining were tested and found  to conform with the requirements when 65-70% ore,  6-12% coke breeze and 20-25% agglomerate powder from  previous expts. were used. A. A. Bachtlingk</p>																									

**Testing the calcinability of the Tulomoserail ore.**  
S. D. Tikhonov. *Inst. Mekhanicheskoi Fiziki i Priborostroyeniya* (Inst. Mech. Treatment Phys.). *Concn. and Agglomeration of Iron Ores in U. S. S. R.* 1932, 80: 3.—Good results were obtained by using in the calcining process 7.8% of a coke contg. 1.0% S, 1.3% ash and 4.2% water and 20-25% of agglomerate powder from previous expts. A. A. Hochling.

ALPHABETIC INDEX																									
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
<p>Agglomeration of Bakal "chernotals" S. D. Topolovskiy.  Inst. Mekhanicheskoi Obrabotki Poryadnitskikh Tverdykh  Mekhanizmi (Inst. Mech. Treatment Ores). <i>Chem. and  Agglomeration of Iron Ores in U. S. S. R.</i> 1932, 119-21.  Chernotals are composed of <math>\text{Fe}_2\text{O}_3</math> 82.64, <math>\text{Al}_2\text{O}_3</math> 3.37,  Fe 57.85, CaO 0.40, MgO 0.60, <math>\text{SiO}_2</math> 4.50, <math>\text{P}_2\text{O}_5</math> 0.052,  S 0.11 and MnO 2.03%. Attempts to produce agglomer-  ates strong enough for the blast furnace failed. It is  thought that the addn. of an Fe ore with easily melting  silica may produce satisfactorily strong agglomerates.  Addn. of <math>\text{SiO}_2</math> or sand did not improve the quality.  A. A. Bozhilnik</p>																									
METALLURGICAL LITERATURE CLASSIFICATION																									
<p>1. Iron and Steel  2. Non-Ferrous Metals  3. Castings  4. Welding  5. Heat Treatment  6. Corrosion  7. Powder Metallurgy  8. Metallurgical Engineering  9. Metallurgical Chemistry  10. Metallurgical Physics  11. Metallurgical Microscopy  12. Metallurgical X-Ray  13. Metallurgical Spectroscopy  14. Metallurgical Thermodynamics  15. Metallurgical Kinetics  16. Metallurgical Mechanics  17. Metallurgical Metallurgy  18. Metallurgical Metallurgy  19. Metallurgical Metallurgy  20. Metallurgical Metallurgy  21. Metallurgical Metallurgy  22. Metallurgical Metallurgy  23. Metallurgical Metallurgy  24. Metallurgical Metallurgy  25. Metallurgical Metallurgy  26. Metallurgical Metallurgy</p>																									

Agglomerating the Dashkasan ore. S. D. Toporkov.  
 Inst. Mekhanicheskoi Obrabotki Polesnykh Tselovaniy  
 i Mekhanobr (Inst. Mech. Treatment Ores). Concn. and  
 Agglomeration of Iron Ores in U. S. S. R. 1932, 160-1.  
 The tested concentrates had the av. compn.: Fe total  
 61.94-69.23, Fe<sup>++</sup> 10.68-17.90 and S 0.10-0.18%. The  
 best agglomeration was reached with 2.5-3.0% coke  
 breeze, 6-8% water and 90-91.5% ore. The agglomerate  
 contained: SiO<sub>2</sub> 8.44, Fe<sub>2</sub>O<sub>3</sub> 79.15, FeO 3.18, Al<sub>2</sub>O<sub>3</sub>  
 2.65, MnO 0.20, CaO 6.02, MgO 0.41, P<sub>2</sub>O<sub>5</sub> 0.02, S 0.14,  
 As 0.0095 and loss on heat treatment 0.05%. A. A. B.

ASB-56A METALLURGICAL LITERATURE CLASSIFICATION

S/133/60/000/011/002/023  
A054/A029

AUTHORS: Chukin, V.V., Candidate of Technical Sciences, Miller V.Ya.,  
Professor, Toporkov, S.D., Candidate of Technical Sciences,  
Karelin, V.G. Engineer, Bogeslovskiy, V.N., Engineer, Leont'yev,  
L.I., Engineer

TITLE: Fluidized Magnetic Conversion of the Lisakovsk Iron Ores

PERIODICAL: Stal', 1960, No. 11, pp 965-971

TEXT: The magnetic roasting of Lisakovsk iron ore was investigated by the UFAN Institute of Metallurgy and by the Uralmekhanobr in cooperation with the Vsesoyuznyy nauchno-issledovatel'skiy institut metallurgicheskoy teplo-tekhniki (All-Union Scientific Research Institute of Metallurgical Heat Technique. The kinetics of roasting were examined on a laboratory scale (in the UFAN by L.I. Leont'yev under the supervision of Professor V.Ya. Miller), the aero- and hydrodynamics of the fluidized bed were investigated in a transparent model while experiments were also carried out in a roasting furnace on a semi-industrial scale. The iron ore tested consisted of 35-37% Fe, 0.23% FeO, 26-28% SiO<sub>2</sub>, 10-13% hydrate water and 8-10% hygroscopic water; the 0-2 mm fraction in this ore amounted to 80%. In the laboratory equipment (a vertical, tubular

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S/133/60/000/011/002/023  
A054/A029

## Fluidized Magnetic Conversion of the Lisakovsk Iron Ores

resistance furnace and a ceramic reaction tube, 20 mm in diameter) 25 g of the iron ore (1-3 mm fraction) was calcinated. The sample was heated up to 700°C by flue gases having a composition which corresponds to that of the actual operation. Next the sample was crushed to 0-0.25 mm size and enriched in a humid magnetic analyzer, in which the intensity of the magnetic field was 900 oersteds. Extraction of iron was most intensive (up to 92%) when increasing the (Co+H<sub>2</sub>) content in the gas to 2.5%; however, at such a high degree of extraction the rate of reduction of iron oxide to magnetite amounted to only 50%. Maximum extraction can be obtained when the quantity of reduction agents in the gas amounts to 3.7% (61.5% iron). Since there were 3.7% reducing agents in the gas, the optimum enriching results were obtained after calcination at 800°C, while the magnetizability of the ore suddenly increases when reducing the roasting temperature to 700°C. Tests were also carried out with various fractions (1-7 mm) and at various temperatures. When roasting in a neutral medium (purified nitrogen) at about 800°C the magnetizability of the ore increased considerably: the concentrate contained more than 59% Fe and also about 7.5% bivalent FeO. In order to establish the nature of the magnetic phases, X-ray structural analyses were carried out on crude and calcinated ores in nitrogen

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S/133/60/000/011/002/023  
A054/A029

# Fluidized Magnetic Conversion of the Lisakovsk Iron Ores

gas at 800°C and it was found that the high degree of magnetization was due to the formation of unbalanced magnetic ferrum-oxides with distorted crystal lattices in the decomposition process of hydrogoethite upon rapid heating, but also due to the accelerated reduction processes during the transformation of crystal lattices of ferro-hydroxides. The tests and calculations suggested that the speed of magnetic roasting is not so much limited by the fact that crystal-chemical transformations take place, but rather more by the dehydration rate of the ore, i.e., by the heating rate of its particles. The aero-hydrodynamics of the fluidized bed were tested on a transparent model, the main parts of which are a chamber, a worm-type feeder, a cyclone and a bunker. The effect of the air velocity in the chamber on the fluidized bed was examined and it was found that the specific resistance of the fluidized bed decreases with the height of the bed and also with the increase of the average air velocity due to the increasing porosity of the bed. The field of concentration, the granulometric structure of the dust within the chamber, the time during which the dust stayed in the chamber were also examined. In the roasting furnace tests were carried out according to four schemes (with reducing agents in the gas from 0.85 to 4.5% and by feeding ore in amounts of 85 to 145 kg/h). It was found that when applying di-

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S/133/60/000/011/002/023  
A054/A029

Fluidized Magnetic Conversion of the Lisakovsk Iron Ores

viding walls in the heated bed, the distribution of particles during their stay in the chamber improved considerably, and that the chambers with rectangular cross sections were more suitable than those with circular cross sections. The best enriching results were obtained by crushing the calcinated ores to 0 - 0.2 mm and by recovering the free oölites (mainly 0.1 - 0.2 mm in size). At such a degree of crushing the concentrate contained 58.04 - 58.44% Fe, the yield in calcinate ore was 67.89 - 65.79%, while the quantity of extracted iron amounted to 98.15 - 97.22%. There are 9 figures and 2 tables.

ASSOCIATION: VNIIMT, Uralmekhanobr, institut metallurgii UFAN (UFAN Metallurgical Institute)

Card 4/4

CHUKIN, V.V., kand.tekhn.nauk; TOPOROV, S.D., kand.tekhn.nauk;  
MILLER, V.Ya., prof.; KARELIN, V.G., inzh. LEONT'YEV, L.I., inzh.

Magnetizing roasting of Lisakovskoye deposit iron ores in Gor.  
zhur. no.6:60-64 Je '61. (MIRA 14:6)  
(Kustanay region--Iron ores)  
(Ore dressing)

TOPORKOV, V.A., kand. tekhn. nauk

Effect of detonating an elongated, divided charge. Vzryv. delo  
no.54/11:203-210 '64. (MIRA 17:9)

1. Gornyy otдел AN Uzbekskoy SSR.

TOPORKOV, V.A.

Increased efficiency of the effect of a column charge.

Vzryv. delo no.55/12:150-154 '64.

(MIRA 17:10)

1. Sredneaziatskiy filial Gosudarstvennogo nauchno-issledovatel'skogo instituta tsvetnykh metallov.

TOPORKOV, V.A.

Analysis of calculation formulas for determining the weight of a charge.  
Uch. zap. SAIGIMSa no.7:249-254 '62. (MIRA 17:2)

1. Sredneaziatskiy nauchno-issledovatel'skiy institut geologii i mineral'nogo syr'ya, Tashkent.

TOPORKOV, V.A.

Mechanical harvesting of transplants. Sakh. prom. 33 no.2:57  
F '59. (MIRA 12:3)

1.Stepnyanskiy sveklosovkhov.

(Voronezh Province--Sugar beets--Harvesting)

TOPORKOV, V.A.

Mechanized excavation of mother beet roots from piles. Sakh.  
prom. 33 no.10:55-56 0 '59. (MIRA 13:3)

1. Stepnyanskiy svesklosovkhoz.  
(Sugar beets--Storage)



TOPORKOV, V. A.

Cand Tech Sci - (diss) "Effect of the diameter and length of charge on the crushing of mountain rock." Tashkent, 1961. 12 pp with diagrams; (Academy of Sciences USSR, Inst of Mining Affairs); 150 copies; price not given; (KL, 6-61 sup, 226)

TOPORKOV, V.A., gornyy inzhener

Effect of the diameter and length of a charge on rock breaking.  
Vzryv. delo no.47/4:205-217 '61. (MIRA 15:2)  
(Blasting)

TOPORKOV, V.A., kand. tekhn. nauk

Action of the detonation of an explosive charge in a medium.  
Vzryv. delo no.51/8:120-132 '63. (MIRA 16:6)  
(Blasting)

TOPOROV, V.D.

Design of gating systems for making castings of magnesium  
alloys. Lit.proizv. no.9:9 S '62. (MIRA 15:11)  
(Magnesium founding) (Foundries—Equipment and supplies)

**"APPROVED FOR RELEASE: 08/31/2001**

**CIA-RDP86-00513R001756310019-8**

**APPROVED FOR RELEASE: 08/31/2001**

**CIA-RDP86-00513R001756310019-8"**

ACCESSION NR: AP4044455

The inner wall of the

11024-  
ACCESSION NR 111014450

ENCLOSURE

Excluded view of subject

Card

TOPORKOV, V.O., laureat Stalinskoy premii, professor, narodnyy artist SSSR.

Portrayal of a Soviet physician. Zdorov'ye 1 no.8:27-28 Ag '55  
(MLRA 9:5)

(MEDICAL ETHICS)



TOPORKOV, V. Ya.

Dissertation: "The Dressing of Fine grades of Coal (6-1 mm) in Mineral Suspension, in a Radial Flow." Dr Tech Sci, Inst of Mineral Fuels, Acad Sci USSR, 22 Jun 43.  
(Vechernyaya Moskva, Moscow, 11 Jun 54)

2.

SO: SUM 318, 23 Dec 1954

CA

**Beneficiation ability of USSR coal and method of its evaluation.** V. Ya. Toporkov. *Nal S.* 404-13 (1948).  
The beneficiation ability of a coal or mixt. of coals is expressed best by the ratio of the theoretically attainable yield of concentrate ( $P$ ) to the ash content ( $A_d$ ) of this concentrate.  $T$ , referred to as the beneficiation index, is calcd. from  $T = P \times 100 / A_d \times H$  where  $P$  is the theoretical yield of concentrate in % of total coal,  $A_d$  is the ash content dry basis, and  $H$  is the fraction of d. 1.8 in per cent of total coal. This calcn. is based on a sepn. at d. 1.5 as the most suitable for USSR coals. The beneficiation ability of coal is expressed by the numerical value of  $T$ . With respect to this value, coals are divided into 10 groups for which the value of  $T$  runs from  $> 20$  for coal easiest to beneficiate to  $< 5$  for the hardest. Coals from 12 main coal deposits of the USSR are tabulated. M. Hosh

Топорков, В. Я.

✓ 90. DEWATERING AND RECOVERY OF RESIDUES FROM FLOTATION OF COAL  
SLURRY, Топорков, В.Я. (Ugol (Coal), Feb. 1953, 12-17). Methods and  
data are discussed and plant is proposed in which the slurry has lime added  
to it and goes through a radial thickener, a hydro-cyclone and a centrifuge.  
The water from the slurry is returned to the flotation plant for re-use.  
(L).

3 full

TOPORKOV, V.Ya.

Flotation of coal slime. Ugol' 28, No.5, 29-35 '53.  
(CA 47 no.19:10195 '53)

(MLRA 6:4)

1. transcription of the 1st page shows that a small amount of material is in the ash

VODNEV, G.G.; SHELKOV, A.K.; DIDENKO, V.Ye.; FILIPPOV, B.S.; TSAREV, M.N.;  
 ZASHVARA, V.G.; LITVINENKO, M.S.; MEDVEDEV, K.P.; MOLODTSOV, I.G.;  
 LGALOV, K.I.; RUBIN, P.G.; SAPOZHNIKOV, L.M.; TYUTYUNNIKOV, G.N.;  
 DMITRIYEV, M.M.; LEYTES, V.A.; LERNER, B.Z.; MEDVEDEV, S.M.; REVIYAKIN,  
 A.A.; TAYCHER, M.M.; TSOGLIN, M.E.; DVORIN, S.S.; RAK, A.I.; OBUKHOV-  
 SKIY, Ya.M.; KOTKIN, A.M.; ARONOV, S.G.; VOLOSHIN, A.I.; VIROZUR, Ye.V.;  
 SHVARTS, S.A.; GINSBURG, Ya.Ye.; KOLYANDR, L.Ya.; BELETSKAYA, A.F.;  
 KUSHNEREVICH, N.R.; BRODOVICH, A.I.; NOSALEVICH, I.M.; SHTROMBERG, B.I.;  
 MIROSHNICHENKO, A.M.; KOPELIOVICH, V.M.; TOPORKOV, V.Ye.; AFONIN, K.B.;  
 GOFTMAN, M.V.; SEMENENKO, D.P.; IVANOV, Ye.B.; PEYSKHZON, I.B.;  
 KULAKOV, N.K.; IZRAELIT, E.M.; KVASHA, A.S.; KAPTAN, S.I.; CHERMNYKH,  
 M.S.; SHAPIRO, A.I.; KHALABUZAR', G.S.; SEKT, P.Ye.; GABAY, L.I.;  
 SMUL'SON, A.S.

Boris Iosifovich Kustov; obituary. Koks i khim. no.2:64 '55.(MLRA 9:3)  
 (Kustov, Boris Iosifovich, 1910-1955)

KHVAN, Vil'gel'm Ivanovich; TOPORKOV, V.Ya., otvetstvennyy redaktor;  
RYKOV, N.A., redaktor izdatel'stva; KOROVENKOVA, Z.A., tekhnicheskii  
redaktor

[Jigging coal in an aqueous medium] Otsadka uglia v vodnoi srede.  
Moskva, Ugletekhizdat, 1956. 115 p. (MIRA 9:9)  
(Coal preparation)

ARONOV, Samuil Grigor'yevich; BAUTIN, Ivan Grigor'yevich; VOLKOVA, Zoya Andreyevna; VOLOSHIN, Arkhip Il'ich; VIROZUB, Yevgeniy Vladimirovich; GABAY, Lev Izrailevich, DIDENKO, Viktor Yefimovich; ZASHKVARA, Vasil'y Grigor'yevich; IYAKOV, Pavel Aleksandrovich, ZUSTOV, Boris Iosifovich [deceased]; KOTOV, Ivan Konstantinovich; KOTKIN, Aleksandr Matveevich; KOMANOVSKIY, Maksim Semenovich; LEYTES, Viktor Abramovich, MOROZ, Mikhail Yakovlevich; NIKOLAYEV, Dmitriy Dmitriyevich, OBUKHOVSKIY Yakov Mironovich; RODSHTSYN, Pavel Moiseyevich; SAPOZHNIKOV, Yakov Yudovich, SENICHENKO, Sergey Yefimovich; ~~TOPOROV~~, Vasil'y Yakovlevich; CHERMNYKH Mikhail Sergeyevich; CHERKASSKAYA, Esfir' Ionovna, SHVARTS, Semen Aronovich; SHERMAN, Mikhail Yakovlevich; SHVARTS, Grigoriy Aleksandrovich; LIBERMAN, S.S., redaktor izdatel'stva; ANDREYEV, S.P., tekhnicheskiy redaktor

[Producing blast furnace coke of uniform quality; a collection of articles for the dissemination of advanced practices] Poluchenie domennogo koksa postoiannogo kachestva; sbornik statei po obmenu peredovym opytom. Khar'kov, Gos.nauchno-tekhn.izd-vo lit-ry po cherno i tsvetnoi metallurgii, 1956. 300 p. (MLRA 9:8)  
(Coke industry)



"APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001756310019-8

THE USE OF SUPERSONIC AIR INTAKE SYSTEMS CAN BE REDUCED TO  
0.02 cu. m./ton of coal processed

H. L. Olla

APPROVED FOR RELEASE: 08/31/2001

CIA-RDP86-00513R001756310019-8"

TOPORKOV, V. YA.

68-1-4/21

AUTHOR: Toporkov, V. Ya.

TITLE: Beneficiation of Coking Coals in Heavy Suspensions. (Obogashcheniye koksuyushchikhsya ugley v tyazhelykh suspenziyakh)

PERIODICAL: Koks i Khimiya, 1957, No.1, pp. 10 - 15 (USSR)

ABSTRACT: In 1952-1953, UKbIN developed a scheme and separators of a new design for the beneficiation of coals in heavy suspension. The method is suitable not only for large but also for small coal sizes (6 - 1 mm). This scheme was checked on a pilot plant with satisfactory results. Two modifications of separators (Figs. 1 and 2) with central and peripheral feeding are outlined. The valve for withdrawing heavy product is shown in Fig.3. The calculation of the path and the velocity of heavy and light grains in the suspension and calculation of the diameter of the separator are discussed and the method of calculating is illustrated by an example. The pilot plant is described (Fig. 5). Both types of separators were tested (diameter 400 mm). As a heavy medium, the magnetic fraction of blast furnace flue dust was used. 110 experiments on the beneficiation of Donbass coals and the difficult-to-treat washed product from the Makeyevsk Washery were carried out. The following sizes were tested: 60 - 6 mm, 60 - 1 mm, 6 - 1 mm and 12 - 1 mm. Throughput for small sizes was 1 - 1.2 t/h with 3 - 4 m<sup>3</sup>/h of

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Beneficiation of Coking Coals in Heavy Suspensions.

68-1-4/21

circulating suspension, 25 - 50% of which was withdrawn with residues and 75 - 50% with concentrates; for large sizes the throughput increased to 3 - 4 t/h. Experimental results are given in Tables 1 and 2. It was established that in the concentrate the theoretical ash and sulphur content can be attained at any specific gravity of separation within a range of 1.35 - 1.8. The actual yield of concentrate differs from the theoretical by 0.2 - 2%, depending on the degree of beneficiation and the washability of coal. Concentrates contained 97-98% of clean fractions and 2 - 3% of an intermediate product but free from the rock fraction. Optimum specific load per 1 m<sup>2</sup> of the useful area of separator was for small sizes 7 - 8 t/h and for large sizes 25 - 30 t/h. In 1956, the author, together with N.V. Florinskiy and P.P. Babin (Giprokoks) tested a separator with central feed and 1 800 mm dia. on one of the Polish washeries. Coal of 10 - 0.5 mm size, free from dust, was used. The results obtained agreed with those previously obtained. Moreover, a satisfactory beneficiation of coal sizes 1 - 0.5 mm was established (no data). In conclusion, the use of magnetic separation for the regeneration of the suspension is recommended with which the consumption of heavy medium is decreased to

Card 2/3 1 - 1.5 kg/ton. There are 2 tables and 5 figures.

Beneficiation of Coking Coals in Heavy Suspensions.

68-1-4/21

ASSOCIATION: Urals Scientific-research Coal-chemical Institute.  
(Uralskiy Nauchno-issledovatel'skiy Uglekhimicheskiy  
Institut)

AVAILABLE: Library of Congress

Card 3/3

*10/10/10, 1/11*

AUTHOR: Kulyasov, V.A. and Toporkov, V.Ya. (UKhIN). 522

TITLE: A new flotation machine for the beneficiation of coal slurries. (Novaya flotatsionnaya mashina dlya obogashcheniya ugol'nogo shlama.)

PERIODICAL: "Koks i Khimiya" (Coke and Chemistry), 1957, No. 4, pp. 17 - 18, (U.S.S.R.)

ABSTRACT: A description and a diagram of the proposed machine is given. In the editorial note it is stated that as the parameters of the machine proposed are not supported by any calculations and experimental data, the paper is published only as a general statement of the problem of developing a flotation machine of a large capacity. There are 2 diagrams.

TOPORKOV, V. YA.

68-9-3/15

AUTHOR: Toporkov, V.Ya. (Cand.Tech.Sc.)

TITLE: On Dewatering of Coal in Centrifuges (Obezvozhivaniye uglya  
v tsentrifugakh)

PERIODICAL: Koks i Khimiya, 1957, Nr 9, pp.14-18 (USSR)

ABSTRACT: The use of centrifuges for drying fine coal concentrates  
is discussed and some types of centrifuges used for the  
purpose are described and illustrated in Figs.1-4.  
There are 2 tables and 4 figures.

ASSOCIATION: UKhIN

AVAILABLE: Library of Congress.

Card 1/1

68-11-4/11

AUTHOR: Toporkov, V.Ya., Candidate of Technical Sciences.

TITLE: Beneficiation of Coals on Coke Oven Works (Obogashcheniye ugley na koksokhimicheskikh zavodakh)

PERIODICAL: Koks i Khimiya, 1957, No.11, pp. 18 - 23 (USSR)

ABSTRACT: The development of coal washeries on coke oven works is outlined. The list of washeries on coke oven works operating in 1957, together with the year in which they were put into operation and washing methods used, is given in Table 1. Data on the operating practices of washeries on the Southern coke oven works are given in Table 2. There are 2 tables and 3 figures.

ASSOCIATION: UKhIN

AVAILABLE: Library of Congress

Card 1/1

YEMEL'YANOV, Dmitriy Sidorovich; TOPORKOV, V.Ya., kand.tekhn.nauk, retsenzent;  
KINAREYEVSKIY, A.L., retsenzent; VESSEL'MAN, S.G., prof., otv.red.;  
PASHCHINSKAYA, G.N., red.; CHERNYSHENKO, Ya.T., tekhn.red.

[Theoretical principles of the flotation of coal] Teoreticheskie  
osnovy flotatsii kamennykh uglei. Khar'kov, Izd-vo Khar'kovskogo  
ordena Trudovogo krasnogo znameni gos.univ. im. A.M.Gor'kogo, 1958.  
289 p. (MIRA 12:4)

1. Zaveduyushchiy laboratoriyey obogashcheniya ugley Ukrainskogo  
nauchno-issledovatel'skogo ugle-khimicheskogo instituta (for Topor-  
kov). 2. Zaveduyushchiy otdelom obogashcheniya ugley instituta  
Yuzhgiproshakht (for Kinareyevskiy).  
(Coal preparation) (Flotation)



SOV/68-58-8-2/28

AUTHOR: Toporkov, V.Ya., Candidate of Technical Sciences  
TITLE: Methods of Decreasing the Sulphur Content of Coals During  
the Beneficiation Process (Puti snizheniya sernistosti  
uglya v protsesse obogashcheniya)

PERIODICAL: Koks i Khimiya, 1958, nr 8, pp 7 - 9 (USSR)

ABSTRACT: From the experience of operation of a number of washeries treating Donets coking coals, the average decrease in ash content of 10-11% and in sulphur content of 0.4-0.6% is obtained. In order to improve further the contents of ash and sulphur in concentrates, their re-washing is advocated. An experimental work on re-washing of primary concentrates (Table 1) carried out on the Khar'kovskiy koksokhimicheskiy zavod (Khar'kov Coke Oven Works) indicated that a further decrease in the content of sulphur from 2.29 to 2.07% and of ash from 7.47 to 5.05% with a yield of the concentrate of 90% can be obtained. Similarly, with re-treatment of primary flotation concentrates only a small decrease in the yield (2-3%) but a considerable decrease in the ash content (1.5-2%) and in the sulphur content (0.1-0.2) can be obtained (Tables 2 and 3). For high-sulphur coking coals which, under normal washing conditions do not yield a

Card1/2

SOV/68-58-8-2/28

Methods of Decreasing the Sulphur Content of Coals During the  
Beneficiation Process

satisfactory product in respect of sulphur content, it is proposed to crush all primary concentrates to 3-0 mm size and retreat them in jigs and flotation machines. Investigations indicated (not specified) that in comparison with a concentrate crushed to 12-0 mm, a decrease by 0.3-0.4% in the content of sulphur can be obtained.  
There are 3 tables.

ASSOCIATION: UKhIN

Card 2/2

1. Coal--Processing    2. Sulfur--Reduction    3. Coal--Test  
methods

Το ροζέ του, V. ΥΑ.

9(1) PLEASE I BOOK EXPLANATION 809/2127

Kokchetkinskiye proizvodstvo; sbornik statey (By-Product Coking Industry; Collection of Articles) Moscow, Metallurgizdat, 1959. 240 p. 2,500 copies printed.

Ed.: B. S. Pilyipov; Ed. of Publishing House: A. A. Boryukin; Tech. Ed.: P. S. Isant'yeva

**PURPOSE:** The book is intended for engineers and technicians in the by-product of existing industry and in scientific research institutes. The book may also be used by students in secondary and higher technical schools.

CONTRACT, the articles in this collection on the by-product coking industry appeared originally either in the periodical *Izvestiya Khimiko (Sovetskaya Khimiya)* or in other publications during 1955-1958. The book discusses the development of raw-material reserves for coking, technology of the manufacture of coke, quality of coke and further enlargement of the number of chemical coking products obtained. Basic articles are intended for use as a basis for preparation of lecture courses and seminars for students and engineers in the fields of technology and automation of industrial processes. The book contains many illustrations and tables and is a necessary reference for secondary individual articles.

SPYROMYX, L. 8.; L. M. Lasorevsky, and N. G. Paliyenko. [Russian] The Basic Principles for Preparation of Coals for Coking by Crushing

**Keywords:** *3-Year* [Candidate of Technical Sciences, USSR]. Description of Oiling Deals in Heavy Metals.

Imenitsiy, Ya. S. (Vinnitskoobogashcheniye), and A. Z. Turovskiy [III AN SSSR],  
Centrifugal Beneficiation of Coking Coals

Wladimir, Y. A. Ya... [Gorlpen  $\frac{1}{2}$ ]. Courtesy of the Quality Indexes of West-European Cote

Pyrotechnics, I-3, and M. K. Kulakov [Algorithms]. Progress in Col-  
or Graphics.

**Pilyayev, B. S.** [Candidate of Technical Sciences, Gosplan USSR]. Improvement in the Organization and Launching of the Use of Cold Combustion in the Operation of Engines. *Izv. Vuzov, Mashinostroyeniye*, 1966, No. 1, pp. 10-12, 11 refs.

**FLEMMING, I. V., A. T. Voloshin, and S. A. Sharvits.** [Candidates of Technical Sciences.] Government of the Republic of Armenia and Mechanical Engineering Institute of the Yerevan State University. 1978. 106 p. 24 cm. 1 rouble.

196

of the Eastern Oule with the Use of Stamping

Fooding Plants  
(Metallurgisidant), and S. A. Sazonov (Gosplan 1976)

197

### Metallurgical Coke

SAVATZKY, M. S.; and I. M. ROSALGREN [unint.]. Prospects of the Development of Processing Chemical Obtained in the By-Product Siding Industry in the USSR. During 1959-1961.

Bozalovich, I. M. [Ukraine]. Progress in Developing a Larger Number of Primary Products in the Processing of Coal Tar

Page 10

20-30-24  
201/2018



SOV/68-59-7-7/33

AUTHORS: Toporkov, V. Ya., Florinskiy, N.F. and Shevchenko, A.I.

TITLE: Beneficiation of Coals in Heavy Media in the Yasinovskiy Coking Works

PERIODICAL: Koks i khimiya, 1959, Nr 7, pp 16 - 20 (USSR)

ABSTRACT: A description of the plant and some operational results are given. The plant, with a throughput of 100 t/hr started operations in April 1958. This is the first plant of this type in the USSR. It is designed to beneficiate a washed product, but it can also treat large (80 - 12 mm) and small (12 - 0 mm) as well as unclassified (80 - 0 mm) coal. Magnetite suspension is used as a beneficiating medium. The design of the separator (designed by V.Ya. Toporkov) is shown in Figure 1. Starting coal is passed to a screen on which 0.75 - 0 mm fraction is washed out and passed to a flotation plant. Washed coal is treated in two separators in succession. From the first separator (3.5 m dia) concentrates, and from the second (1.8 m dia) intermediate products are withdrawn. The plant is described in some detail (Figure 2). The plant was operated to produce two fractions:

Card 1/2

SOV/68-59-7-7/33

Beneficiation of Coals in Heavy Media in the Yasinovskiy Coking Works

concentrates and tailings. The initial ash content of washed coal was 38% and that of concentrates 7.4%, and of tailings 50.7% (Tables 1 and 2). The theoretical yield of concentrates at specific weight of separation 1.43 should be 33.5%, the actual yield obtained was 31.2%. Magnetite losses were 1.5 kg per ton of coal (0.4 - 0.5 kg/t in coal and the rest in the effluent from electromagnetic separator). It is expected that the efficiency of separation will be further improved. There are 2 figures and 2 tables.

ASSOCIATIONS: UKhIN, Giprokoks, Yasinovskiy koksokhimicheskiy zavod (Yasinovskiy Coking Works)

Card 2/2

SEKT, P.Ye.; TESLENKO, F.F.; LEVIN, S.A.; TKACHEV, S.F.; ZASHKVARA,  
V.G.; TOPORKOV, V.Ya.; BELIKOV, A.M.

Location as a factor affecting the economic indices pertaining  
to the operation of coking coal cleaning plants of the Donets  
Basin. Koks i khim. no.2:53-56 '60. (MIRA 13:5)

1. Khar'kovskiy inzhenerno-ekonomicheskiy institut (Sekt, Teslenko,  
Levin, Tkachev). 2. Ukrainskiy nauchno-issledovatel'skiy uglekhi-  
micheskoy institut (for Zashkvara, Toporkov). 3. Ukrniugleoboga-  
shcheniye (for Belikov).  
(Coal preparation)

TOPORKOV, V.Ya.; VOZNYI, G.F.; TANKOVSKIY, P.I.; PUKHAL'SKAYA, V.A.

Use of various coagulating agents for the clarification of slurry  
containing washery waters from coal-cleaning plants. Koks i khim.  
no.10:3-7 '60. (MIRA 13:10)

1. Ukrainskiy uglekhimicheskiy institut.  
(Coal preparation)

TOPORKOV, V.N. (Sverdlovsk); MATEVOSYAN, R.O. (Sverdlovsk); STASHKOV, L.I.  
~~(Sverdlovsk)~~; DARIYENKO, Ye.P. (Sverdlovsk)

Apparatus for studying the kinetics of chemical reactions. Zhur.fiz.  
khim. 38 no.8:2102-2104 Ag '64. (MIRA 18:1)

1. Ural'skiy politekhnicheskiy institut.



MIROSHNICHENKO, A.M., kand. tekhn. nauk; PANCHENKO, S.I., doktor tekhn. nauk; SHTRUMBERG, B.I., kand. tekhn. nauk; FRISHBERG, V.D., kand. tekhn. nauk; BAYDALINOV, P.A., inzh.; GRYAZNOV, N.S., doktor tekhn. nauk; ZASHKVARA, V.G., doktor tekhn. nauk; LAZOVSKIY, I.M., kand. tekhn. nauk; MARINICHEV, B.T., inzh.; FEL'DBRIN, M.G., kand. tekhn. nauk; BAKUN, N.A., inzh.; BARATS, B.M., inzh.; VOZNYI, G.F., kand. tekhn. nauk; MIKHAL'CHUK, A.M., inzh.; TOPORKOV, V.Ya., kand. tekhn. nauk; FLORINSKIY, N.V., inzh.; KHAYET, A.N., inzh.; SHELKOV, A.K., inzh., red.; ARONOV, S.G., doktor tekhn. nauk, red.; PREOBRAZHENSKIY, P.I., inzh., red.

[Manual for coke chemists in six volumes] Spravochnik koksokhimika v shesti tomakh. Moskva, Izd-vo "Metallurgiya." Vol.1.  
[Source of raw materials and preparation of coal for coking]  
Syr'evaya baza i podgotovka uglei k koksovaniyu. 1964. 490 p.  
(MIRA 17:5)

TOPOROV, Yu. A.

Consol.  
ttr

USSR/Miscellaneous - Training

Card 1/1 : Pub. 133 - 19/21 ✓

Authors : Toporov, Yu. A., engr. of the Nikolaevsk Oblast' administration of communications

Title : Deficiencies in the organization of technical education

Periodical : Vest. svyazi 9, page 32, Sep 1954

Abstract : A letter to the editor describing deficiencies in the organization of telegraph-telephone service personnel in the Nikolaevsk Oblast'.

Institution : ...

Submitted : ...

Dup

YASHIN, V.N.; TOPOROV, Yu.P.

Use of silicones as lubricants for surgical instruments. Med.  
prom. 16 no.4:38-42 Ap '62. (MIRA 15:8)

1. Nauchno-issledovatel'skiy institut eksperimental'noy khirurgi-  
cheskoy apparatury i instrumentov.  
(SILICONES) (SURGICAL INSTRUMENTS AND APPARATUS)

ACCESSION NR: AP4037181

8/0069/64/026/003/0394/0395

AUTHOR: Deryagin, B. V.; Toporov, Yu. P.; Aleynikova, I. N.

TITLE: Evaluation of the strength of adhesion of spherical dielectric particles to metal surfaces

SOURCE: Kolloidnyy zhurnal, v. 26, no. 3, 1964, 394-395

TOPIC TAGS: dust removal, 10 micron particle size, adhesive force, ultracentrifuge, glass dust adhesive force, adhesiometer, centrifugal force

ABSTRACT: The knowledge of such adhesive force is required for thoroughly removing dust from solid bodies. This is particularly important for particles of less than 5-10 microns, since centrifugal force will not completely remove such size. The relative adhesive number (ratio of removed particles to initial adhesive number) is thus a basic adhesion characteristic. Glass-23 spheres and polymer powder, with a particle size less than 5-10 micron, were used as test material, and a UTs-P-A ultracentrifuge as equipment. The measuring equipment and procedure are described. The powder was placed on the rotor. It was shown that no complete dust removal could be obtained at the acceleration maximum of  $3 \times 10^5$  g for glass, and much lower

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ACCESSION NR: AP4037181

acceleration for the polymer, since the rotor heated up. The adhesive force of the glass thus exceeded  $3 \cdot 10^{-3}$  dyne. This method has other disadvantages since it does not permit adhesion measurements under various conditions (humidity, temperature, etc.). Additional vibrators were of no avail. At present tests are conducted for removing dust through acceleration by impact with good preliminary results. A pneumatic adhesiometer was also devised. Orig. art. has: no figures.

ASSOCIATION: Institut fizicheskoy khimii AN SSSR, Moskva (Institute of Physical Chemistry, Academy of Sciences, SSSR)

SUBMITTED: 03Dec63

DATE ACQ: 09Jun64

ENCL: 00

SUB CODE: GC

NO REF SOV: 001

OTHER: 002

Card 2/2

ACCESSION NR: AP4043824

S/0303/64/000/004/0062/0064

AUTHOR: Deryagin, B. V., Toporov, Yu. P., Tomfel'd, I. N., Aleynikova, I. N.,  
Parfanovich, B. N.

TITLE: Compressed air adhesion gauge

SOURCE: Lakokrasochnyye materialy\* i ikh primeneniye, no. 4, 1964, 62-64

TOPIC TAGS: organic coating, film adhesion, powder deposit adhesion, organic film  
adhesion, compressed air adhesion gauge, adhesion gauge design, adhesion gauge

ABSTRACT: The report describes a compressed air adhesion gauge based on the  
principles of the May, Smith and Snow (Nature, 179, 494, 1957) method, designed by the  
authors to measure adhesion of organic film and powder deposit coatings to solid surfaces.  
The instrument consists of a high-pressure chamber (receiver, 0-150 atm) and a low-  
pressure chamber (thick-walled barrel, inside diameter = 22.4 mm), separated by a  
suitable membrane. A cylindrical projectile is propelled by compressed air when the  
membrane is pierced and impacts on a disk of high-strength heat treated steel. The  
resultant inertia produces separation of an organic coating deposited on the projectile face  
(target has center aperture with diam. = 15 mm) or a powder coating deposited on the  
external surface of the target (solid disk). Described modifications allow tests in air,

Card

1/2

ACCESSION NR: AP4043824

vacuum or any gas medium. Adhesion strength is determined as the minimal velocity of a projectile which results in separation of the coating. Orig. art. has: 2 illustrations.

ASSOCIATION: None

SUBMITTED: 00

ENCL: 00

SUB CODE: IB, MT

NO REF SOV: 005

OTHER: 005

Card

2/2

DERYAGIN, B.V.; TOPOROV, Yu.P.

Methods of investigating the frictional properties of polymers  
under conditions of strong unilateral compression. Koll. zhur.  
23 no.1:118-121 Jan-F '61. (MIRA 17:2)

1. Institut fizicheskoy khimii AN SSSR, Moskva.



TOPORKOVA, A.A., inzh.

Degree of moisture saturation of dried out tiles kept in a  
damp room. Sbor. trud. ROSNIIMS no.27:121-123 '63.  
(MIRA 17:1)

TOPORKOVA, A., inzhener; SELIVERSTOV, V., inzhener.

Effective types of laminated tiles. Stroi.mat.isdel.i konstr. 1  
no.9:37 S'55. (MLRA 9:1)

(Tiles)

*TOPORKOVA, A.*

USSR /Chemical Technology. Chemical Products  
and Their Application

I-12

Silicates. Glass. Ceramics. Binders.

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 31561

Author : Toporkova A.

Title : Porosity of Vacuum-Treated Ceramic Articles

Orig Pub: Stroit. materialy, izdeliya i konstruktsii, 1956,  
No 8, 29

Abstract: Description of the results of determination of  
water absorption in the cold ( $W_c$ ) and on boiling  
( $W_b$ ), of some clays previously subjected to a  
vacuum treatment. It is noted that on vacuum  
treatment and increased temperature of firing,  
water absorption in the cold and at a boil,

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USSR /Chemical Technology. Chemical Products  
and Their Application

I-12

Silicates. Glass. Ceramics. Binders.

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 31561

decreases, while their ratio increases. Thus  
the ratio  $W_c/W_b$  can not serve as a criterion of  
frost resistance.

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